

File No. 5478-8A.1



Ottawa, Ontario  
April 24, 2002

0360

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

**HIGGS, David; CAIRNS, Robert, E.; SHAND, Ian**

For : **PROTEIN AND LIPID SOURCES FOR USE IN AQUAFEEDS  
AND ANIMAL FEEDS AND A PROCESS FOR THEIR  
PREPARATION**

Inventor : HIGGS, David; CAIRNS, Robert, E.; SHAND, Ian

Serial No. : 10/076,499

Filing Date : February 19, 2002

Group Art Unit : 1761

Examiner : Unknown

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Hon. Commissioner of Patents  
and Trademarks  
Washington, D.C. U.S.A. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to Applicant's duty of disclosure, the information listed in the attached form PTO-1449 is brought to the attention of the Examiner. Copies of the listed items are enclosed.

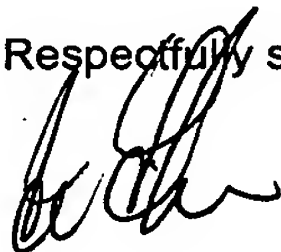
The citation of the listed items is not a representation that they constitute a complete or exhaustive of listing of the relevant art or that the references are prior art. The items listed are submitted in good faith, but are not intended to substitute for the Examiner's search. It is hoped, however, that in addition to apprising the Examiner of the particular items, it will assist in identifying

fields of search and in making as full and complete a search as possible.

The filing of this Information Disclosure Statement is not an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. 1.56(b).

To the best of applicant's knowledge, this Information Disclosure Statement is being filed before the date of mailing of a first Office Action in connection with this case.

Respectfully submitted,



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Enclosures

# **INFORMATION DISCLOSURE CITATION** (Use several sheets if necessary)

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Applicant(s)

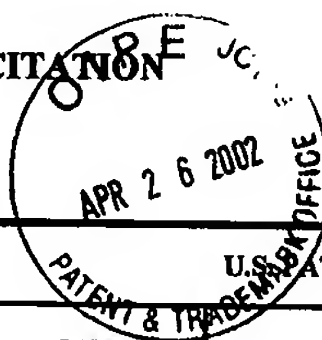
HIGGS, David; CAIRNS, Robert, E.; SHAND, Ian

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## **U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	1.	2,371,682	Mar.20.45	Eisaman			
	2.	2,592,348	Apr.08.52	Siefker, et al.			
	3.	2,904,436	Sept.15.59	Auervach			
	4.	3,952,115	Apr.20.76	Damico, et al.			
	5.	3,965,268	Jun.22.76	Stocker, et al.			
	6.	4,233,210	Nov.11.80	Koch			
	7.	4,366,097	Dec.28.82	Cameron, et al.			
	8.	4,418,013	Nov.29.83	Cameron, et al.			
	9.	4,418,086	Nov.29.88	Marino, et al.			
	10.	4,702,924	Oct.27.87	Owens, et al.			
	11.	4,889,921	Dec.26.89	Diosady, et al.			

## **FOREIGN PATENT DOCUMENTS**

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
	12.	EP 1074605	07-02-2001	Europe				✓
	13.	DE 3927118	21-02-1991	Germany				✓
	14.	JP 63260885	27-10-1988	Japan				✓
	15.	EP 0925723	30-06-1999	Europe				✓
	16.	GB 2280348	Feb.1995	Great Britain				✓

## **OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

1A	"FRI-71 Process" Jones, J. Amer. Oil Chem. Soc. 56 (1979) pp 716-721 - process for preparation of rapeseed and canola protein
2A	Finfish Nutrition and Fishfeed Technology, Vol. 2, Heenemann Verlagsgesellschaft MbH, Berlin, pp 191-218 Higgs, et al. (1979), J.E. Halver, and K. Tiews, eds. - diets and fecals sample preparation

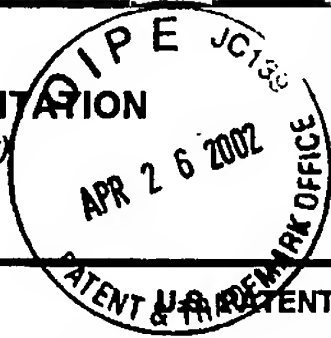
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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	17.	4,973,490	Nov.27.90	Holmes			
	18.	4,148,789	Apr.10.79	Kozlowska, et al			
	19.	5,086,166	Feb.04.92	Lawhon, et al.			
	20.	5,183,683	Feb.02.93	Mott, et al.			
	21.	5,622,744	Apr.22.97	Matson, et al.			
	22.	5,705,216	Jan.06.98	Tyson			
	23.	5,773,051	Jun.30.98	Kim			
	24.	5,844,086	Dec.01.98	Murray			
	25.	6,005,076	Dec.21.99	Murray			
	26.	6,254,920	Jul.03.01	Brunner			
	27.	5,727,689	Mar.17.98	Anderson, et al.			

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	28.	JP 05076291	March.1993	Japan				✓
	29.	WO 9724933	Jul.17.1997	PCT				✓
	30.	2,244,398	Jan.29.1997	Canada				✓
	31.	2,340,640	Aug.17.99	Canada				✓
	32.	2,167,951	Jan.24.96	Canada				✓

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	3A	Silver, et al (1993) in S.J. Kaushik and P. Luquet, eds. Fish Nutrition in practice IVth International Symposium on Fish Nutrition and Feeding, INRA, Paris, pp. 459-468 - fatty acid composition determination procedure
	4A	Fenton and Fenton (1979) Can.J.Anim. Sci, 59, pp.631-634 -chromic acid concentration determination procedure

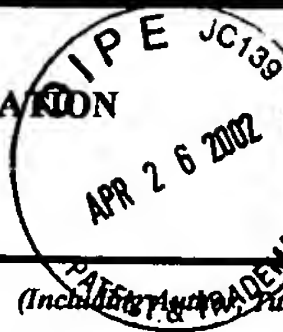
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5A

AOCS Official Method Ba 6-84  
- concentrations of crude fibre

6A

Troeng, S. (1995) J.A.O.C.S. 32, pp 124-126  
- concentration of lipid

7A

AOCS Official Method Ba 12-75, reapproved 1997  
-measurements of trypsin inhibitor

8A

AOCS Official Method Ba 9-58, reapproved 1993  
-measurements of urease

9A

Mwachireya, et al. (1999) Aquaculture Nutrition 5, pp 73-82  
- determination of amino acid concentrations method

10A

Forster, et al. (1999) Aquaculture 179, pp 109-125  
-determination of phytic acid levels

11A

Higgs, et al. (1982) Aquaculture 29, pp 1-31  
- plasma spectroscopy

12A

Duan and McGregor (1981) Glucosinolate Analysis of Rapeseed (Canola).  
Method of the Canadian Grain Commission Revised Edn.  
Grain Research Laboratory, Canadian Grain Commission, Winnipeg, Manitoba Canada  
- method to determine concentrations of glucosinolate

13A

Himadri, et al, "Effects of formulation and processing variables on dry fish feed pellets  
containing fish waste" Journal of the Science of Food and Agriculture,  
Elsevier Applied Science Publishers, Barking GB

14A

Veldsink, "Heat Pretreatment of Oilseeds: Effect IB IUK Quality"  
July 1999

15A

Database WPI, Section Ch, Week 1994 21 - April 28, 1994, Csernitzky K, et al.  
"Preparation of soil nutrient contain compose residue vegetable oil effluent sludge  
sunflower seed husk straw liquid manure"  
- XP-002185811

16A

Hajen, et al. (1993) a, b Aquaculture 112, pp 321-348  
- design of digestibility tanks and fecal collection procedures

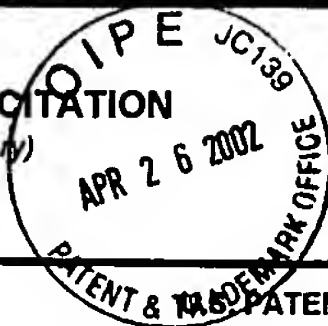
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33.	4,237,210	Dec.02.80	Dougherty			

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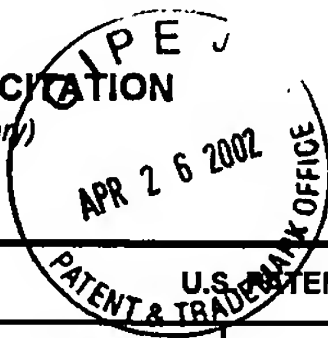
17A	Cho et al. (1985) Finfish nutrition in Asia: methodological approaches to research and development, IDRC, Ottawa, ON Canada, pg 154 - diet and lyophilized fecal sample analysing procedures
18A	Forster (1999) Aquaculture Nutrition 5, pp 143-145 - calculation of digestibility co-efficients

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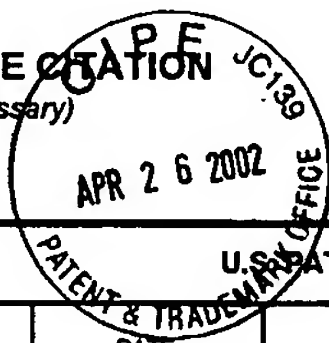
	19A	Hui, Y.H.: "Bailey's Industrial Oil & Fat Products, Vol. 4 Edible Oil & Fat Products Processing Technology" 1996, John Wiley, NY, NY U.S.A., page 603-630; XP-002185810
	20A	M. Ristic et al., "Protein meal obtained from small fish by extrusion" ACTA Veterindria, vol. 49, no. 1, 1999, page 57-64 XP-001042120

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**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

21A	Database WPI Section Ch, Week 198849 Derwent Publications Ltd., London, GB Class CO4, AN 1988-349660

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